

Date: Sun, 10 Apr 94 14:40:30 PDT  
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>  
Errors-To: Info-Hams-Errors@UCSD.Edu  
Reply-To: Info-Hams@UCSD.Edu  
Precedence: Bulk  
Subject: Info-Hams Digest V94 #400  
To: Info-Hams

Info-Hams Digest                      Sun, 10 Apr 94                      Volume 94 : Issue 400

Today's Topics:

73  
Anyone Bicycle Mobile?  
Delivery Failure Report  
EME + PC + ROTATOR  
FCC Delays (2 msgs)  
how's FM broadcast for freq. standard? (3 msgs)  
Logging program for Macintosh  
Low cost antenna required  
Q: ICOM ICM 700  
SAREX Update & Keps 4/10/94  
Undeliverable Message  
WWV Antennas (2 msgs)

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>  
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: 10 Apr 1994 16:11:02 -0400  
From: elroy.jpl.nasa.gov!swrinde!gatech!news.ans.net!hp81.prod.aol.net!  
search01.news.aol.com!not-for-mail@ames.arpa  
Subject: 73  
To: info-hams@ucsd.edu

In article <gregCnqKAn.KIy@netcom.com>, greg@netcom.com (Greg Bullough) writes:

>Who careses anyways????  
Maybe your English teacher!

73sss de John KA3DBN

-----  
Date: 10 Apr 1994 10:06:13 GMT  
From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!  
howland.reston.ans.net!noc.near.net!news.delphi.com!gilbaronw0mn@network.ucsd.edu  
Subject: Anyone Bicycle Mobile?  
To: info-hams@ucsd.edu

>I hope to be bicycle mobile on 2 meters this summer. Any suggestions on  
>equipment and antennas would be most welcome.

>--

>Michael J. Malloy	Amateur Radio N9WJV
>Medical College of Wisconsin	Compuserve 70334,3563
>Milwaukee, Wisconsin	Internet mmjjmm@post.its.mcw.edu
>	
>	

I used to use a 5/8 mounted on a plate on a rear carrier. It worked quite well. You will need a large batter for power or your time will be limited. I would get one of the vox capable hts and you are going to have fun getting a headset to work with a helmet. It is a blast though. It tests your conditioning too. My voice would change a little into the wind up a hill. :-)

Gil Baron, El Baron Rojo, WOMN Rochester,MN  
"Bailar es Vivir"  
PGP2.3 key at key servers or upon request

-----  
Date: 10 Apr 94 16:53:08 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Delivery Failure Report  
To: info-hams@ucsd.edu

From: NAME: Mail Postmaster  
FUNC:  
TEL: <POSTMASTER AT A1 AT ANDV02>  
To: net%"Info-Hams@UCSD.EDU"@RCVAX@MRGATE

ALL-IN-1 was unable to deliver your message dated to  
ADAMS,SE - no such ALL-IN-1 account  
on node ANDV02

The subject of the message was :  
Info-Hams Digest V94 #399

-----  
Date: Sun, 10 Apr 1994 19:16:13 +0000  
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!pipex!warwick!uknet!demon!  
kanga.demon.co.uk!dick@network.ucsd.edu  
Subject: EME + PC + ROTATOR  
To: info-hams@ucsd.edu

Hi Gang,  
I have a PC and a pair of K400 rotators  
(ele + az) looking for some software  
do drive these for EME work, any ideas?  
TTFN

-----  
Date: 10 Apr 1994 20:47:22 GMT  
From: ihnp4.ucsd.edu!swrinde!cs.utexas.edu!howland.reston.ans.net!darwin.sura.net!  
blackhole.delmarva.com!blackhole.delmarva.com!news@network.ucsd.edu  
Subject: FCC Delays  
To: info-hams@ucsd.edu

Anyone have a feel for how long licenses take to get from FCC Gettysburg?  
Last I heard it was 10 weeks :-(

I passed my Tech this morning ( and bought some code practice stuff :-)  
The VEC said (jokingly, I hope!) that I could be up to 20 wpm by the time  
I see a license.

- John

---  
+-----+  
| John K. Scoggin, Jr.                      Email: scoggin@delmarva.com    |  
| Supervisor, Network Operations    |  
| Delmarva Power & Light Company    |  
| 500 N. Wakefield Drive    |  
| Newark, DE 19714-6066    |  
|    Fax: (302) 451-5321                      |  
| The opinions expressed are not those of Delmarva Power, simply the    |  
| product of an over-active imagination...                                      |  
| Time is Nature's way of preventing everything from happening at        |  
| once.    |  
+-----+

-----  
Date: 10 Apr 1994 21:26:55 GMT

From: ihnp4.ucsd.edu!swrinde!gatech!howland.reston.ans.net!vixen.cso.uiuc.edu!  
cesn5.cen.uiuc.edu!mf10991@network.ucsd.edu  
Subject: FCC Delays  
To: info-hams@ucsd.edu

scoggin@delmarva.com (John K Scoggin Jr) writes:

>Anyone have a feel for how long licenses take to get from FCC Gettysburg?  
>Last I heard it was 10 weeks :-(  
>  
>I passed my Tech this morning ( and bought some code practice stuff :-)  
>The VEC said (jokingly, I hope!) that I could be up to 20 wpm by the time  
>I see a license.

> - John

>---

Good Luck! I took my exam back on Feb. 12 in central Illinois hoping to  
get my callsign by Hamvention (Last weekend in April). I have heard recently  
that some ppl have waited up to 13 wks for there callsign.

Still hoping to get it in time

----- Melissia

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Date: Sun, 10 Apr 1994 14:24:33 GMT  
From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!emory!rsiatl!ke4zv!  
gary@network.ucsd.edu  
Subject: how's FM broadcast for freq. standard?  
To: info-hams@ucsd.edu

In article <CnyI2B.2y7@icon.rose.hp.com> lkraft@core.rose.hp.com (Lyle Kraft)  
writes:

>  
> Unless someone can correct me, I believe FM broadcast is allowed  
> +/- 2KHz. Same for broadcast TV audio/video. AM broadcasters are  
> allowed +/- 20Hz. Nowadays with the availability of cheap, accurate  
> freq. counters I'm sure they're all much closer than this.

No, it's half that amount. FM and TV tolerance is +/- 1000 Hz, AM is  
+/- 10 Hz. As to your latter comment, don't bet on it. The rules now  
only require checking frequency once a month.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

-----  
Date: Sun, 10 Apr 1994 14:19:17 GMT  
From: ihnp4.ucsd.edu!swrinde!emory!rsiatl!ke4zv!gary@network.ucsd.edu  
Subject: how's FM broadcast for freq. standard?  
To: info-hams@ucsd.edu

In article <CnyGzK.7o8@srgenprp.sr.hp.com> alanb@sr.hp.com (Alan Bloom) writes:  
>Tom Randolph (randolph@est.enet.dec.com) wrote:

>  
>:I just acquired one of the Optoelectronics 1200 MHz handheld freq counters. In  
>:looking for a simple, cheap way to calibrate it, I note that it picks up the  
>:nearby FM broadcast station as 107.2999 MHz when I connect a rubber duck. how  
>:close can I assume those guys are? The way the counter is set up, the higher  
>:the standard freq, the better your calibration. Zero-beating WWV won't get me  
>:as close as something less definitive at 100 MHz or higher.  
>:-Tom R. N100Q randolph@est.enet.dec.com  
>  
>Why not call up the broadcast station and ask them? Ask to speak to the  
>chief engineer.

He probably won't know. Ask for the operator on duty, he can give you  
moment by moment readings off his display, if he still has one. Note  
that FM broadcasters only have to maintain a tolerance of +/- 1000 Hz from  
their assigned frequency. Note also that their assigned frequency may  
have up to a 10 kHz offset from normal channel center if they're close  
spaced with another station. So \*ask\* what their nominal carrier frequency  
is, don't assume its the nominal channel center.

The same goes for TV broadcast. Note too that we aren't required to  
maintain a Type Accepted frequency monitor anymore, and only have  
to have our transmitters checked once a month for compliance to the  
+/- 1000 Hz rule, sometimes with an Opto counter. :-(

Go with zero beating WWV.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

-----  
Date: Sun, 10 Apr 1994 14:31:34 GMT  
From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!emory!rsiatl!ke4zv!  
gary@network.ucsd.edu  
Subject: how's FM broadcast for freq. standard?  
To: info-hams@ucsd.edu

In article <244@ted.win.net> mjsilva@ted.win.net (Michael Silva) writes:  
>In article <2o4h56\$ijo@agate.berkeley.edu>, Ken A. Nishimura  
(kennish@kabuki.EECS.Berkeley.EDU) writes:  
>>  
>...stuff deleted...  
>  
>>Most FM stations use a FLL to keep their transmitters on frequency by  
>>dividing their output frequency by some factor and comparing that  
>>with a known accurate lower frequency reference. Note that dividing  
>>a FM signal also divides the deviation index by the division ratio.  
>>Thus, by dividing by 5 or so, the FM signal can be guaranteed not  
>>to exceed a deviation of 2.405, and the carrier never disappears and  
>>will always be of proper phase, assuming that the signal corresponds...  
>>  
>  
>You're not saying they use their \*modulated\* signal as the input to  
>their frequency comparator, are you? That would cause the carrier to to  
>re-modulate itself to cancel out it's original modulation as it tried  
>to stay on center frequency! If you tried to pick out just the  
>carrier in a divided-by-five signal you'd need a bandwidth of less than  
>10Hz (at approx. 20MHz), and, dividing or not, you'd end up with a  
>uselessly small capture range.

No. All you need is a low pass filter in the PLL error loop with a  
cutoff of less than 10 Hz. Since many transmitters \*modulate\* the  
transmit VCO, there's no point where you can get carrier without  
modulation in the transmitter. This is the same way your synthesized  
2 meter HT works. It doesn't have a narrow bandwidth filter to  
"pick out" the carrier either, just a low pass response in the error  
feedback network so it smooths out \*long term\* frequency error, but  
not the audio modulation.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

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Date: 10 Apr 1994 13:44:03 -0400  
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!news.ans.net!hp81.prod.aol.net!  
search01.news.aol.com!not-for-mail@network.ucsd.edu  
Subject: Logging program for Macintosh  
To: info-hams@ucsd.edu

In article <1994Apr7.112736.25572@cobra.uni.edu>, spurra8478@cobra.uni.edu  
writes:

-----  
Date: Sun, 10 Apr 1994 14:32:23 GMT  
From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!emory!rsiatl!ke4zv!  
gary@network.ucsd.edu  
Subject: Low cost antenna required  
To: info-hams@ucsd.edu

In article <budhia.12.2DA65157@underdog.ee.wits.ac.za>  
budhia@underdog.ee.wits.ac.za writes:

>  
>I require some info on designing a low cost antenna to rural communities  
>where signal levels are fairly low. Thus a low cost outdoor antenna is  
>required.

What frequency?

Gary

--  
Gary Coffman KE4ZV                   |     You make it,             | gatech!wa4mei!ke4zv!gary  
Destructive Testing Systems |     we break it.             | uunet!rsiatl!ke4zv!gary  
534 Shannon Way             |     Guaranteed!             | emory!kd4nc!ke4zv!gary  
Lawrenceville, GA 30244     |                                     |

-----  
Date: 10 Apr 1994 14:38:24 GMT  
From: ihnp4.ucsd.edu!usc!sol.ctr.columbia.edu!xlink.net!news.urz.uni-  
heidelberg.de!rz.uni-karlsruhe.de!news.uni-stuttgart.de!news@network.ucsd.edu  
Subject: Q: ICOM ICM 700  
To: info-hams@ucsd.edu

Hi there !

anbody out there had experience modifying an ICOM ICM 700  
for use as an amateur RX/TX ?

thanks, wolfgang

-----  
Date: 10 Apr 94 16:17:33 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: SAREX Update & Keps 4/10/94  
To: info-hams@ucsd.edu

SB SAREX @ AMSAT \$STS-59.009  
SAREX Update & Keps 4/10/94

Greenbelt, MD, April 10, 1994 at 16:00 UTC

After the successful check pass yesterday, the SAREX Working Group has had several reports of packet radio operation and some general voice QSO operation during the Shuttle passes over the U.S. In addition, the St. Bernard High School in Playa Del Rey, CA had a very excellent school group pass this morning (Rev 19). A total of seven questions were asked by the students.

The official SAREX element set for today will be GSFC-007. This element sent was generated by Ron Parise, WA4SIR of the Goddard Space Flight Center. Gil Carman, WA5NOM reports that the predictions using GSFC-007 differed from JSC-009 by approximately 20 seconds. GSFC-007 follows:

STS-59

1	23042U	94020A	94100.26164012	0.00018681	11051-4	10679-4	0	75
2	23042	56.9969	260.0497	0009381	274.0340	85.9677	16.20558915	145

Satellite: STS-59

Catalog number: 23042

Epoch time: 94100.26164012 (10 APR 94 06:16:45.71 UTC)

Element set: GSFC-007

Inclination: 56.9969 deg

RA of node: 260.0497 deg Space Shuttle Flight STS-59

Eccentricity: 0.0009381 Keplerian Elements

Arg of perigee: 274.0340 deg

Mean anomaly: 85.9677 deg

Mean motion: 16.20558915 rev/day Semi-major Axis: 6596.1671 Km

Decay rate: 0.19E-03 rev/day\*2 Apogee Alt: 223.97 Km

Epoch rev: 14 Perigee Alt: 211.59 Km

NOTE - This element set is based on NORAD element set # 007.

The spacecraft has been propagated to the next ascending



node, and the orbit number has been adjusted to bring it into agreement with the NASA numbering convention.

Submitted by Frank H. Bauer, KA3HDO for the SAREX Working Group

/EX

-----  
Date: Sun, 10 Apr 1994 20:43:54 +0000  
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!pipex!demon!llondel.demon.co.uk!  
dave@network.ucsd.edu  
Subject: Undeliverable Message  
To: info-hams@ucsd.edu

In article <A0I8+x3tdha@ottis24.Pwc-Tpc.ca> MAILER-DAEMON@Pwc-Tpc.CA writes:

>To: Info-Hams@UCSD.EDU

>Cc:

>Subject: Info-Hams Digest V94 #396

>

>Message not delivered to recipients below. Press F1 for help with VNM

>error codes.

>

> VNM3043: Todd Shea@CM.IT@PWC.HDQ

>

>----- Error number Explanation Follows -----

>

>VNM3043 -- MAILBOX IS FULL.

>

> The message cannot be delivered because the  
> recipient's mailbox contains the maximum number of  
> messages, as set by the system administrator. The  
> recipient must delete some messages before any  
> other messages can be delivered.

>

> The default limit is 1000 messages. Administrators  
> can set lower limits if required using the Change  
> mailbox settings function available in the Manage  
> User menu (MUSER). The 1000 message limit is the  
> maximum allowed by the Mail program. If this limit  
> is reached, the recipient must delete some of  
> the messages before the mailbox can accept any more  
> incoming messages.

Oh well, at least it makes a change from the usual 'unknown host' problems.  
Catch is, you can 't send him an email to tell him his mailbox is full :-)

Dave

--

```
*****
* G4WRW @ GB7WRW.#41.GBR.EU AX25      * Start at the beginning. Go on *
* dave@llondel.demon.co.uk Internet * until the end. Then stop. *
* g4wrw@g4wrw.ampr.org Amprnet * (the king to the white rabbit) *
*****
```

-----  
Date: 10 Apr 94 21:03:54 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: WWV Antennas  
To: info-hams@ucsd.edu

Text item: Text\_1

> But WWV is using just vertical dipoles (not phased, as with WWVH). There  
> are certainly higher gain antennas than a dipole that will still retain  
> an omnidirectional 'orientation'. Jeff NH6IL

Hello again, Jeff. My point is that one cannot change the gain of an antenna system without changing the radiation pattern. In that process, while Hawaii may enjoy an increase in signal level, Arizona may suffer a decrease in signal level. Who's going to be forced to suffer because of the antenna system change?

73, KG7BK, Cecil\_A\_Moore@ccm.hf.intel.com (I do not speak for Intel)

-----  
Date: 10 Apr 1994 21:25:49 GMT  
From: ihnp4.ucsd.edu!agate!kabuki.EECS.Berkeley.EDU!kennish@network.ucsd.edu  
Subject: WWV Antennas  
To: info-hams@ucsd.edu

I think that people are applying 2-D thinking to a 3-D world. There are two main ways of getting "gain", both of which involve concentrating power in one direction at the expense of another. WWVH uses what is known as a broadside or endfire (can't remember which it was from the description) array of vertical dipoles to create a pattern, which when viewed from above, appears to concentrate its power to the west.

However, there is another way to concentrate power, which is what most FM broadcast stations do. If you look at a single dipole vertically oriented, you will see that it

has a omni pattern viewed from above. Fine. If you now view it from the ground, a lot of power goes up into the air, some of it at nearly 90 degrees to the ground. (An ideal dipole has a null at 90 deg.) Now, recall what you learned about HF propogation. Power that is sent nearly straight up has a much lower chance of skipping (being refracted) than one with a low angle of incidence. Thus, that power is most likely being wasted. A stacked dipole of proper phasing (two dipoles on top of another) can use constructive interference to put more power closer to the horizon rather than up in the air. This puts more power into the low angles of incidence which are much more likely to be refracted and/or reflected back down to earth. Note, however, that the omni pattern as viewed from above is NOT disturbed. This is how one gets "omni" gain. FM broadcasters do this to put as much power as possible into the horizon. Not much advertising potential high up in the air.....

Ken

-----  
Date: (null)

From: (null)

\*\*\* Logging \*\*\*

<Ham Radio Station Logbook>

HyperCard stack that stores and displays radio contact information. Automatically stamps entries with time and date. Contacts can be sorted by frequency, call sign, or date of contact. Includes report formats, a "Q-code" reference list, and on-line help. SanSoft, 892 E. Quail Place, Highlands Ranch, CO 80126. (The same program appears to be available from Heizer Software, 1941 Oak Park Blvd., Suite 30, Pleasant Hill, CA 94523.)

<FDLog!>

Contact logging and duping program. Can transmit any of ten programmable CW messages. Generates real-time statistics on QSO rates. System One Control, 3900 85th Ave N, Suite 200, Brooklyn Park, MN 55443.

<MacContest 3.5>

Allows real-time or post-contest logging of a wide variety of contests. Checks for dupes, figures scores instantly, and offers various printouts. Interfaces to TNCs for CW and RTTY contests, to DX packet clusters, to Kenwood transceivers, and to MacinTalk for easy post-contest entry. Gerald Eberle, HB9CEY, P.O. Box 13, CH-4417 Ziefen, Switzerland.

<LOGic>

(Macintosh version scheduled.) Lets you define the rules determining dupes

(such as once per band or once per contest). Displays heading, distance, and other information about the country being worked. Automatically enters contact time; if interfaced directly to a radio, also enters the frequency, band, and mode. Shows status toward earning amateur-radio awards. User-definable database fields. Exchanges data with other programs. Personal Database Applications, 2634 Meadow Bend Court, Duluth, GA 30136.

<HF Logger 1.2>

A real fine HyperCard logging program! (hey... thats all I got!) N0QGG

<Simple Log .2b>

This little utility is a handy way to create a logging file that you can later import into any data base for analysis, etc. It also shows you that just about anyone can use Think C and create something on the Mac! Let me know if you'd like the source code. WD1V @ WA1WOK.NH.USA.NA Author is John Seney - WD1V, e-mail address is jseney@aol.com. For a copy of this program, mail a SASE disk mailer and 800K disk to: John D. Seney, WD1V, 144 Pepperidge Dr., Manchester, NH 03103

System 7

<Marathon>

Contesting/logging- Have seen references to (March 92 CQ magazine) and heard good things about MARATHON by N 0 IOS. I believe a demo was available for \$8. Last address known is: Kevin Krueger, N0IOS, 1780 Ruth St., St.Paul, MN 55109

73 for now.... c u on the shortwaves

Terry Stader - KA8SCP

America Online Ham Radio Club Host

Macintosh Amateur Radio Software List Maintainer

Internet: tstader@aol.com (files <28K) or

p00489@psilink.com ( files >28K)

KA8SCP@WA1PHY.#EMA.MA.USA.NOAM

ka8scp@ka8scp.ampr.org [44.56.4.82] Mac

ka8scp-1@ka8scp-1.ampr.org [44.56.4.120] DOS Clone

(they're BOTH pc's!)

-----  
Date: Sun, 10 Apr 1994 14:37:11 GMT

From: netcomsv!netcom.com!kludge@decwrl.dec.com

To: info-hams@ucsd.edu

References <Cnwor0.6L5@ryn.mro.dec.com>, <CnyGzK.7o8@srngenprp.sr.hp.com>,  
<262@ravel.okay.com>

Subject : Re: how's FM broadcast for freq. standard?

In article <262@ravel.okay.com> duncan@ravel.okay.com (Jim Duncan) writes:

>In article <CnyGzK.7o8@srngenprp.sr.hp.com> alanb@sr.hp.com (Alan Bloom) writes:

>>Why not call up the broadcast station and ask them? Ask to speak to the  
>>chief engineer.

>>

>Most FM stations, including mine, that use recent FM exciters typically  
>end up being +/-100 Hz. of the exact assigned carrier frequency. So  
>this would work out to roughly 1 ppm. accuracy. You can't take this  
>totally for granted, of course, since the FCC requires only +/- 2 kHz..

Around here, I am unhappy to report that there are a lot of stations that  
just barely meet the +/- 2 kHz requirement and at least one that doesn't.  
(Admittedly one of them is using a 1952 vintage RCA exciter that was designed  
originally for the 40 MHz band, which RCA resold as an 88 MHz exciter by  
replacing the final 6146 stage with a frequency doubler, and as a result  
the drift is multiplied).

Most of the stations out here in rural VA don't have engineers on-staff  
any longer, and they only fix things when they become catastrophically  
broken. This does not tend to result in the best quality signal making  
it out over the air.

--scott

--

"C'est un Nagra. C'est suisse, et tres, tres precis."

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End of Info-Hams Digest V94 #400

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